Hopi Compliance Assistance and Technical Support Project Summary Report

As outlined in the scope of work for the Hopi Compliance Assistance and Technical Support Project, Rural Community Assistance Corporation (RCAC) has conducted a series of workshops with three Hopi villages to address transitional challenges that are facing those communities as they await the completion of the Hopi Arsenic Mitigation Project (HAMP). The workshops were conducted during the week of June 24th, 2019 in Shungopavi, Sipaulovi and Mishongnovi. The following is a summary of the proceedings and discussions that took place during those workshops.

Workshop Planning:

Beginning in early 2019, RCAC contacted the four village PWSs that remain out of compliance with the arsenic MCL. The villages were informed of the funding that RCAC had received from EPA to conduct a community-based workshop to discuss any concerns or questions that they may have regarding the HAMP and the interim period until it is completed. Three of the village PWSs, Shungopavi, Sipaulovi and Mishongnovi, were eager to participate and RCAC began working with each individual PWS to finalize a date and agenda for the workshops. At the request of EPA, the week of June 24th was prioritized and the three community meetings were all planned for that week. RCAC and EPA held monthly conference calls to review the workshop agendas, draft presentations, and potential questions that the communities may pose.

As for the fourth village PWS, Polacca, RCAC emailed and met with Village Administrator, Ivan Sidney, just as had been done with the other three villages. Mr. Sidney informed RCAC that they were not interested in participating as they were planning to conduct their own community workshop and that RCAC would be welcome to attend, but that they would not need RCAC's assistance to conduct the workshop.

As for the workshop content, after multiple site visits and discussions with the village Community Service Administrators (CSAs), operators and village water associations, it became clear that most of the transitional challenges were related to questions that EPA, IHS and the Hopi Utilities Corporation (HUC) would be best positioned to answer. EPA was already planning on attending and RCAC invited IHS and subsequently HUC to participate as well.

Overview of the Workshops:

Logistics, venue and publicity for the meetings were handled primarily by the villages as these meetings were owned by the systems. The meetings took place at the village community offices and were well attended. The workshop details were as follows:

| Village | Date | Number of Participants |
|-------------|---------------|------------------------|
| Shungopavi | June 25, 2019 | 28 |
| Sipaulovi | June 26, 2019 | 13 |
| Mishongnovi | June 27, 2019 | 10 |

The final agenda for each workshop included presentations from:

- **EPA** on the overall role of the Drinking Water Enforcement Office, the enforcement targeting tool (ETT) prioritization tool and arsenic enforcement status for the 4 Hopi village PWSs;
- RCAC on the water quality monitoring, the arsenic rule, and arsenic treatment options; and

IHS on the current status of the HAMP, including a map of the newly approved pipeline route.

Challenges and Concerns

The purpose of these workshops was to provide public education on the arsenic issues facing the village PWSs and to hear from the communities about the challenges and concerns they are facing during the interim period. The workshops provided an open forum for the community members to ask questions and raise issues and there was lively discussion at each of the workshops. The discussions centered around three key issues:

- Water quality concerns,
- Interim measures that will allow them to drink water with arsenic levels below the maximum contaminant level (MCL), and
- HAMP progress and future.

Below is a list of the questions that were raised at the meetings. These questions give insight into the real concerns of the communities.

Water quality questions:

- Does boiling water remove arsenic?
- What are the health impacts of drinking our water?
- Is it safe to drink bottled water that has been sitting in hot conditions for who knows how long?
- Does the windmill water have arsenic? Can we drink that water?
- Why did EPA lower the arsenic MCL?
- Where does Hopi stack up against other systems across the country in terms of arsenic?
- Are water vending machines in Flagstaff and Winslow regulated?
- How close are the villages to being fined by EPA for being in violation of the arsenic rule?
- How long does it take for EPA to respond when systems are out of compliance? Why have the
 villages been in violation of the arsenic rule for 13+ years but the HAMP is not yet completed? If
 this was an E. coli violation would the response be quicker?

Interim measures questions:

- What can we do to drink arsenic-free water?
- What under the sink treatment units would be compatible with our water?
- Can HUC install a filling station at the Turquoise Trail wells so that people can haul water in the interim? It could be coin-operated like the Walmart vending stations that charge \$0.15 per gallon or card operated like the station near the Star School.
- Is it feasible for our village to truck in or somehow bring in water from the outside for us?
- Are there grants available for POU treatment?

HAMP questions:

- Will the new wells be protected from any contamination from the nearby landfill?
- When the coal mine closes and stops using that water will it have any effect (quality or quantity) on the HAMP's wells?
- How big is the aquifer that the HAMP wells are tapped into and will it suffice?
- Who is the contact person for HAMP updates?
- How long until the HAMP will be operational? The finish date keeps moving further out.
- Can Tribe handle such a large project if they 638 this?
- Is the cost of bringing power to the pumps included in the \$20.5M price tag for the HAMP?

- Why is Navajo Tribal Utility Authority (NTUA) doing the power instead of Arizona Public Service (APS)?
- Where will the tank be installed for Second Mesa and will it affect our view shed?
- Will the hydro-pneumatic tank in Upper Sipaulovi be used by the HAMP?
- Will HAMP serve Keams Canyon?
- How will HAMP handle sewer for the new water customers that HAMP will serve? Where will those lines go?
- To speed up the HAMP implementation, couldn't we use LIDAR to reduce the surveying work?

Other miscellaneous issues that were raised included:

- Can the Hopi Cultural center change their AOC and tie into the HAMP?
- Shungopavi had received funds for an extension of their distribution system in the direction of the cultural center but it has never happened. When will this extension happen?
- What exactly is the letter of intent and did we already submit that?

Discussion and Next Steps

As evidenced by the breadth and depth of questions above, there is obviously intense community interest in finding a solution to the arsenic problem in their drinking water. People have adopted all kinds of interim strategies to try to cope with the issue, ranging from doing nothing, to hauling water from family members who live outside of the affected villages, to buying bottled water from Flagstaff (100 miles away). These solutions are not fully satisfactory to the communities and they are hoping that something can be done to speed up the implementation of the HAMP and to provide more effective interim solutions (e.g., filling station at the HAMP wells). On a similar note, there is concern that the Tribe and HUC would be challenged to implement the HAMP and any assistance that outside entities can provide to ensure that the HAMP succeeds would be welcomed.

As far as next steps are concerned, at the highest level, it is important for all partners to continue to support IHS, the Hopi Tribe, and the HUC in whatever way possible to implement the HAMP as quickly as possible. At the local level, it may be useful to distribute another round of arsenic fact sheets at the household level. In particular, questions that were raised related to whether or not boiling could remove arsenic, suggest that there is still a need to provide practical advice to the communities on how to deal with arsenic in their water. This fact sheet could also highlight the risks of drinking water from the windmills, as that water is only regulated for livestock consumption and could pose an acute risk if used for human consumption. That being said, many community members are fully informed and aware that it is a health concern and simply want action to be taken. And so the village administrations should be consulted before pursuing this type of fact sheet and they should be able to decide how best to distribute them.